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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,897	10/11/2005	Takeshi Shimoyama	276992US6PCT	6961
22850	7590	06/04/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			CAO, CHUN	
			ART UNIT	PAPER NUMBER
			2115	
			NOTIFICATION DATE	DELIVERY MODE
			06/04/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/552,897

Applicant(s)

SHIMOYAMA ET AL.

Examiner

Chun Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 15-23, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 10-14 and 24-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/11/07, 10/11/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are presented for examination.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title is imprecise.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 29-30 are directed towards a computer program per se, lacking storage on a medium which enables any underlying functionality to occur. A computer program is merely an instance of an abstract idea without producing a useful, concrete and tangible result; and does not fall within one of the four statutory categories as specified in 35 U.S.C. 101. The claimed invention in claims 29-30, which comprises program (software), is not tangibly embodied on a computer storage medium. For examination purposes, the claims are interpreted as a computer storage medium storing the program.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-9, 15-23 and 29-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Birk et al (Birk), U.S. patent no. 6,768,358.

As per claim 1, Birk discloses a frequency control apparatus [figures 4, 6], which observes an operation state of a control object and controls an operation frequency of the control object [col. 6, lines 57-60; col. 7, lines 14-21], comprising:

frequency determination means for determining the operation frequency in response to the operation state of the control object [col. 1, lines 34-45; col. 7, lines 14-21; col. 9, lines 35-42]; and

frequency limitation means [frequency detector] for limiting a range or a value of the operation frequency determined by said frequency determination means [col. 9, lines 43-60; col. 10, lines 57-67].

As per claim 2, Birk discloses means for discriminating whether or not a frequency of a clock signal supplied to the control object to define the operation frequency of the control object is within a prescribed or designated frequency range or has a prescribed or designated frequency value, said frequency limitation means limiting the frequency of the clock signal to a frequency within the frequency range or to the frequency value when it is discriminated that the frequency of the clock signal is not within the frequency range or does not have the frequency value [col. 9, lines 43-60; col. 10, lines 57-67].

As per claim 3, Birk discloses frequency limitation means includes threshold value setting means for setting a threshold value of an upper limit or a lower limit to the frequency of the clock signal [col. 9, lines 43-60; col. 10, lines 57-67].

As per claim 4, Birk discloses that threshold value setting means includes a frequency setting register having the threshold value which can be changed dynamically through execution of a program [col. 10, line 65-col. 11, line 10].

As per claim 5, Birk discloses that threshold value setting means sets threshold values of an upper limit and a lower limit to the frequency of the clock signal simultaneously to limit a frequency width of the clock signal [col. 10, line 65-col. 11, line 10].

As per claim 6, Birk discloses that threshold value setting means sets the threshold values of the upper limit and the lower limit to an equal value so that the frequency of the clock signal is limited to the fixed value [col. 10, line 65-col. 11, line 10].

As per claim 7, Birk discloses that frequency limitation means includes frequency designation means for designating the frequency of the clock signal [col. 9, lines 43-60; col. 10, lines 57-67].

As per claim 8, Birk discloses that frequency determination means observes the operation state of the control object after every fixed interval of time and determines the operation frequency based on the observed operation state [col. 6, line 57-col. 7, line 3; col. 9, lines 43-60; col. 10, lines 57-67].

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As per claim 9, Birk discloses that the control object is a device for an arithmetic operation process which operates with a frequency selectively set among a plurality of clock frequencies [col. 1, lines 34-45].

As to 15-23, are written in mean plus function and contained the same limitations as claims 1-9. Therefore, same rejection is applied.

Regarding to claims 29-30, Birk discloses the claimed system as set forth hereinabove. Therefore, Birk also teach the computer program stored in a computer storage medium to carry out the method of steps of the claimed system.

Allowable Subject Matter

6. Claims 10-14 and 24-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun Cao whose telephone number is 571-272-3664. The examiner can normally be reached on Monday-Friday from 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 25, 2007



CHUN CAO
PRIMARY EXAMINER